

ABSTRACT OF THE DISCLOSURE

An electrophoresis apparatus in which an electrophoretic channel formed in a planar plate made of a transparent member and having satisfactory flat and smooth surfaces is irradiated with an excitation beam through the bottom surface or the top surfaces of the channel in a direction orthogonal thereto, and fluorescence from a sample is detected through a side surface of the channel, or the channel is irradiated with the excitation beam through a side surface of the channel while fluorescence from the sample is detected through the bottom surface or the top surface of the channel. With this arrangement, background light and stray light can be reduced so as to enhance the accuracy of detection of the electrophoresis apparatus.